# 621H
Wheel Tractor-Scraper

<table>
<thead>
<tr>
<th>Engine</th>
<th></th>
<th>Scraper Bowl</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>Cat® C13 ACERT™</td>
<td>Heaped Capacity</td>
<td>18.3 m³</td>
</tr>
<tr>
<td>Max. Power</td>
<td>304 kW</td>
<td>Rated Load</td>
<td>26 127 kg</td>
</tr>
<tr>
<td></td>
<td>407 hp</td>
<td></td>
<td>57,600 lb</td>
</tr>
</tbody>
</table>
621H Features

Economical Hauling System
The wheel tractor-scaper, with its ability to load quickly, haul at high speeds and dump on the go, has the potential to be the most profitable hauling system on the job site. This efficiency can result in fewer machines on the job, reduced operating costs and jobs delivered in a shorter period of time.

Power Train
Caterpillar designed and manufactured power train components deliver the power necessary for fast loading and quick hauls.

Operator Station
Single joystick control of implements, adjustable arm rests, seat, steering column and room to maneuver all reduce fatigue and increase operator comfort and productivity throughout the shift.

Cushion Hitch
The cushion hitch is a Caterpillar proven system for protecting components of the hitch and improving ride quality, dampening loads that might otherwise be carried through the frame to the operator. Cushion hitch offers operators a more comfortable haul portion of the work cycle.

Durability
Cat wheel tractor-scrapers have a history of robust structural design, tested and validated to last in the most rugged loading and hauling conditions.

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Quick loading, high travel speeds and the ability to load and dump on the run yield fast cycle times, allowing Cat Wheel Tractor-Scrapers to consistently deliver high productivity at the lowest cost per ton.
Operator’s Station
Ergonomically designed for all-day comfort, control and productivity.

Ergonomic Layout
The all new H Series operator station is ergonomically designed for total machine control in a comfortable, productive and safe environment. All controls, levers, switches and gauges are positioned to maximize productivity and facilitate a reduction in operator fatigue.

Viewing Area
Designed for excellent all-around visibility and clear sight lines to the job site, the large viewing area offers exceptional visibility to the front of the machine as well as to the cutting edge. The air conditioning unit has been relocated to beneath the cab, allowing the operator enhanced visibility.

Operator Comfort
High productivity from a comfortable, confident operator.

Spacious Cab
With a 21% larger cab, H Series scrapers offer a comfortable working space. The larger cab and wider door make getting in and out of the cab easier. The increased glass area enhances visibility around the machine.

Steering Column
The steering column and pedals have been relocated for more comfortable operation when the seat is angled during machine operation. The telescopic and tilt adjustable steering column maintains a comfortable driving position regardless of operator size.

Standard Comfort Features
The H Series cab is equipped with features designed to maintain operator comfort. Standard comfort features include: coat hook, lunchbox storage platform with strap, air conditioning, heat, and radio-ready.

Seat Options
H Series scrapers use the Cat Comfort Seat with additional travel to allow the operator to position themselves for optimal comfort and productivity. The seat rotates up to 30 degrees to the right for a more comfortable position during loading and 30 degrees to the left to make getting in and out of the cab easier.

For unparalleled ride comfort, H Series scrapers are equipped with the Cat Advanced Ride Management (ARM) seat suspension which uses an active suspension to dampen vibration and minimize end-of-stroke shock loads to the operator.

Integrated Technologies
The optional Sequence Assist, Load Assist, and Cat Grade Control automate many repetitive operator tasks.

T-Handle Implement Control Lever
The redesigned control lever puts all of the scraper functions in the palm of the operator’s hand. The low-effort lever and convenient push-button and thumb wheel controls are ergonomically placed for minimum arm movement.
Power Train – Engine
The Cat® C13 ACERT™ engine are built for power, reliability and efficiency.

ACERT Technology
The Cat® C13 ACERT™ engine continues the evolutionary, incremental improvements that provide breakthrough engine technology built on systems and components developed by Caterpillar with proven reliability. The engine is available with either U.S. EPA Tier 3/EU Stage IIIA equivalent emission configurations or U.S. EPA Tier 4 Interim/EU Stage IIIB certified emission configurations to meet the needs of contractors around the world.

Emissions
Machines equipped with engines meeting U.S. EPA Tier 4 Interim/EU Stage IIIB emission standards are equipped with a Cat Clean Emission Module to deliver the performance and efficiency that customers demand while meeting emission requirements. Machines equipped with the U.S. EPA Tier 3/EU Stage IIIA equivalent engines are equipped with a muffler in place of the Cat Clean Emission Module.

Cat Clean Emission Module (CEM)
CEM is an exhaust aftertreatment package consisting of a diesel particulate filter, and control systems. The CEM reduces particulate emissions using passive and active regeneration during normal engine operation.

Cat NOx Reduction System (NRS)
The Cat NOx Reduction System (NRS) captures and cools a small quantity of exhaust gas, then routes it into the combustion chamber where it drives down combustion temperatures and reduces NOx emissions.

Diesel Particulate Filter Regeneration
Regeneration is the removal of soot from the Diesel Particulate Filter (DPF). The Aftertreatment Regeneration Device (ARD) is used to regenerate the DPF. The DPF traps both particulates and ash, the ash is removed at regular service intervals.
Power Train – Transmission
More power to the ground for greater productivity.

**Electronic Transmission**
The Cat eight-speed forward one-speed reverse Electronic Clutch Pressure Controlled (ECPC) transmission features enhanced shift control logic with anti-hunt shift strategy for speed continuity, and to ensure constant shift times.

- Tractor gears 1-2 – converter drive for increased torque, gears 3-8 – direct-drive for drive train efficiency. Scraper gears use converter drive for more torque in the cut.
- Transmission Hold maintains converter drive for maximum rimpull or holds current gear for best control.
- Programmable Top Gear manually sets top gear available (3rd-8th) to match conditions or speed.
- Neutral Coast Inhibitor prevents transmission shifts into neutral while moving.

**Smooth Transmission Gear Shifting**
The 621H features ECPC Shift Torque Management (STM), with improved Shift Control Logic (SCL) and Part Throttle Shifting (PTS). These features allow smoother shifting and greater acceleration on grades while torque is maintained through the shift changes. SCL also provides automatic shift selection that is more specific to the desired machine operation, and downshifts when needed for maximum acceleration when increased throttle is applied. PTS allows shifting at lower speeds during part throttle operation, resulting in improved part throttle fuel economy, quieter machine operation, and better maneuvering in reduced speed operating conditions.

**Brake Performance**
The 621H uses hydraulically-actuated wet disc brakes for exceptional brake performance. The standard Cat Engine Brake reduces brake wear and enhances machine control.
Structures
Superior design and construction delivers long term durability.

Cushion Hitch
Electronically actuated with parallelogram-type linkage for exceptional strength, with two nitrogen accumulators (4) using free-floating pistons (8) to deliver a smooth ride for enhanced operator comfort and machine durability.

- controlled oil flow (6) dampens rebound oscillation
- leveling valve (7) applies pressure via an orifice (5) to automatically center the piston in load cylinder (1)
- steel castings are used to eliminate many welded joints and increase strength
- double-kingbolt design (2, 3) withstands high external forces, simplifies installation and removal

Lockout Switch
An operator-selectable lockout switch, located on the joystick, locks the cushion hitch down for improved control of the cutting edge during loading and dumping.

Nitrogen Accumulator
Vertically mounted hydraulic cylinder transfers road shocks to nitrogen accumulators. Nitrogen accumulator absorbs and dampens road shocks, thus preventing the loads from being transmitted to the hitch components or to the operator.

Non-Metallic Fenders and Fuel Tank
The new fuel tank is made of recyclable roto-milled polyethylene and keeps the fuel cleaner with controlled filtration and cleanout access ports. The new capacity of the new fuel tank has been increased, providing operators with 10 plus hour shifts depending on engine load factors.

The new tractor fenders are made of the same highly durable, roto-milled polyethylene. The non-metallic fenders prevent material buildup when operating in sticky materials.
**Scraper Bowl**
Caterpillar designed and built for rugged performance and reliability.

**Redesigned Bowl**
The 621H uses a new bowl design than enhances productivity through a 9% increase in bowl capacity over previous models. The low profile design offers low resistance to incoming materials, while cellular constructions adds strength and dent resistance to the bowl sides and floor.

**Hydraulic Lines Protection**
Hydraulic lines durability is increased by routing them through the bowl sidewalls where they are protected from damage on the job site.

**Ejection System**
The powerful ejection system provides constant spreading control while minimizing carryback material. An overflow guard on the ejector helps retain material and keep it from spilling over onto the rear of the scraper.

**Cutting Edges and Cat Ground Engaging Tools (GET)**
A variety of Ground Engaging Tools (G.E.T.) options are available to optimize the machine for different material types and loading conditions. GET options include standard, serrated, and abrasion resistant material (ARM). Most are reversible to provide long life and reduced operating costs.
Loading Options
Flexible loading options to adapt to changing job site conditions.

**Push-Loading**
To achieve maximum productivity, the 621H should be push-loaded with a D8- or D9-size Track-Type Tractor.

**Push-Pull**
The push-pull arrangement is recommended for applications that require a large amount of material to be moved very quickly at low cost per bank cubic meter (bank cubic yard). The push-pull arrangement concentrates the combined power of two machines onto one cutting edge. Push-pull scrapers work in pairs where the lead scraper is pushed through the cut by the trailing scraper. When the lead scraper is fully loaded, the trailing scraper lowers its bowl and is pulled through the cut by the lead scraper. The result is a self-loading system.

The push-pull arrangement features a hydraulically-actuated bail and cushioned plate, which are bolted to the front of the tractor, and a hook that is attached to the rear of the scraper. Working together, push-pull scrapers can provide the lowest cost per meter (yard) for many applications.

As a single-engine machine, the 621H push-pull arrangement is recommended for easy loading application with well maintained haul roads and grades of +5% or less.
Integrated Technologies
Technology options to improve operator comfort and increase productivity.

Sequence Assist
Sequence Assist uses integrated software and position-sensing cylinders to automate many of the tasks an operator performs when loading, hauling and dumping. The operator simply sets preferences for bowl and apron height and subsequently pushes a button to ready the machine for loading, then hauling, then dumping, and then the return to cut. The system automatically sets the cushion hitch, bowl height, apron, and ejector. Sequence Assist comes with a convenient load counter for tracking material moved.

With Sequence Assist, up to 14 individual implement and machine commands are replaced by four touches of a button, allowing the operator additional time to prepare for the loading cycle and observation of the job site.

Load Assist
Load Assist builds on Sequence Assist by loading the bowl with the push of a button. As the machine enters the cut, the operator can activate Load Assist so the system takes over control of the cutting edge height, limiting tire spin based on integrated sensors and GPS technology to ensure consistent and full bowl loads. The operator is responsible only for the throttle, steering, and operating the apron. Load Assist helps make inexperienced operators productive very quickly.

Cat Grade Control
Cat Grade Control is an automatic system that helps you control costs by moving the maximum amount of material with the prime earthmover which often provides the lowest cost per unit of material moved. Using satellite positioning technology, the automatic system ensures cut protection by limiting how deep the scraper will dig. The optional system is available from the factory and fully integrated into the machine and works seamlessly with Sequence Assist and Load Assist.

Additional benefits of Cat Grade Control include putting the site plan in front of the operator for increased efficiency and elimination of rework and using the scraper for site mapping.

Work Area Vision System (WAVS)
Cameras on the machine provide views of the cutting edge, right side and rear. The system enhances safety and provides a new way to see the cutting edge during loading and to see to the rear of the machine when performing push-load or push-pull work with another scraper.
Complete Customer Support
Cat® dealer services help you operate longer with lower costs.

Selection
Make comparisons of the machines you are considering before you buy. Your Cat® dealer can help.

Purchase
Consider the resale value, compare productivity and day-to-day operating costs and fuel consumption.

Operation
For the best operating techniques to increase productivity and your profit, turn to your Cat dealer for the latest training literature and trained staff.

Maintenance
Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S·O·S® and Technical Analysis help you avoid unscheduled repairs.

Replacement
Repair or rebuild? Your Cat dealer can help you evaluate the costs so you can make the right choice.

Product Support
Your local Cat dealership will be with you every step of the way with its unsurpassed worldwide parts support, trained technicians and customer support agreements.

cat.com
For more complete information on Cat products, dealer services and industry solutions, visit us on the web at www.cat.com
Safety
Safety is an integral part of all machine and system designs.

Powered Access Ladder
A new powered access system option significantly reduces the effort required to climb into the cab. The system is a solid, stable angled ladder that folds out from underneath the cab. It is activated from a keypad located behind a service door at ground level. Controls are also located in the cab on a keypad. The ladder provides a rigid and angled base of support for easier climbing and descent. For added safety, the steps are illuminated by LED lights.

An actuator under the cab operates the step. When not in use, the ladder retracts under the cab. An audible alarm sounds if the machine moves while the ladder is down. If power fails on the machine, the operator can raise or lower the steps manually using a lever inside the cab or outside next to the ladder’s top step.

Access and Egress
Handrails and grab irons are provided for safe and secure entrance and exit of the cab as well as for performing daily maintenance.

Work Area Vision System (WAVS)
Cameras on the machine provide views of the cutting edge, right side and rear. The system enhances safety and provides a new way to see the cutting edge during loading and to see to the rear of the machine when performing push-load or push-pull work with another scraper.
### Tractor Engine – U.S. EPA Tier 4 Interim/EU Stage IIIB

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor Engine</td>
<td>Cat® C13 ACERT™</td>
</tr>
<tr>
<td>Max. Power (All Gears)</td>
<td>304 kW 407 hp</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>1,700 rpm</td>
</tr>
<tr>
<td>Displacement</td>
<td>12.5 L 763 in</td>
</tr>
<tr>
<td>Bore</td>
<td>130 mm 5.1 in</td>
</tr>
<tr>
<td>Stroke</td>
<td>157 mm 6.2 in</td>
</tr>
</tbody>
</table>

- Max. power advertised is the max. power available at max. power reference engine speed of 1,700 rpm, measured at the flywheel when the engine is equipped with air cleaner, alternator, and exhaust losses.

### Scraper Bowl

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heaped Capacity</td>
<td>18.4 m³ 24 yd³</td>
</tr>
<tr>
<td>Rated Load</td>
<td>26,127 kg 57,600 lb</td>
</tr>
<tr>
<td>Struck Capacity</td>
<td>13 m³ 17.1 yd³</td>
</tr>
<tr>
<td>Maximum Depth of Cut</td>
<td>315 mm 12.4 in</td>
</tr>
<tr>
<td>Width of Cut, Outside Router Bits</td>
<td>3136 mm 123.5 in</td>
</tr>
<tr>
<td>Maximum Ground Clearance at Cutting Edge</td>
<td>594 mm 23.4 in</td>
</tr>
<tr>
<td>Thickness of Cutting Edge</td>
<td>22 mm 0.9 in</td>
</tr>
<tr>
<td>Maximum Hydraulic Penetration Force</td>
<td>580 kN 130,390 lbf</td>
</tr>
<tr>
<td>Maximum Depth of Spread</td>
<td>540 mm 21.3 in</td>
</tr>
<tr>
<td>Maximum Apron Opening</td>
<td>1767 mm 69.6 in</td>
</tr>
<tr>
<td>Maximum Apron Closure Force</td>
<td>225 kN 50,580 lbf</td>
</tr>
</tbody>
</table>

### Hydraulics

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowl Cylinder Bore</td>
<td>140 mm 5.5 in</td>
</tr>
<tr>
<td>Bowl Cylinder Stroke</td>
<td>845 mm 33.3 in</td>
</tr>
<tr>
<td>Apron Cylinder Bore</td>
<td>150 mm 5.9 in</td>
</tr>
<tr>
<td>Apron Cylinder Stroke</td>
<td>565 mm 22.2 in</td>
</tr>
<tr>
<td>Ejector Cylinder Bore</td>
<td>140 mm 5.5 in</td>
</tr>
<tr>
<td>Ejector Cylinder Stroke</td>
<td>1550 mm 61.0 in</td>
</tr>
<tr>
<td>Push/Pull Bail Cylinder Bore</td>
<td>90 mm 3.5 in</td>
</tr>
<tr>
<td>Push/Pull Bail Cylinder Stroke</td>
<td>415 mm 16.3 in</td>
</tr>
<tr>
<td>Steering Cylinder Bore</td>
<td>127 mm 5.0 in</td>
</tr>
<tr>
<td>Steering Cylinder Stroke</td>
<td>1128 mm 44.4 in</td>
</tr>
<tr>
<td>Cushion Hitch Cylinder Bore</td>
<td>140 mm 5.5 in</td>
</tr>
<tr>
<td>Cushion Hitch Cylinder Stroke</td>
<td>251 mm 9.9 in</td>
</tr>
<tr>
<td>Steering Circuit Flow</td>
<td>234 L/min 61.8 gal/min</td>
</tr>
<tr>
<td>Secondary Steering Circuit Flow</td>
<td>39.0 L/min 10.3 gal/min</td>
</tr>
<tr>
<td>Scrapper Circuit Flow</td>
<td>250 L/min 66.0 gal/min</td>
</tr>
<tr>
<td>Cushion Hitch Circuit Flow</td>
<td>40.1 L/min 10.6 gal/min</td>
</tr>
</tbody>
</table>

### Transmission

<table>
<thead>
<tr>
<th>Gear</th>
<th>Speed [km/h]</th>
<th>Speed [mph]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Forward</td>
<td>5.0</td>
<td>3.1</td>
</tr>
<tr>
<td>2 Forward</td>
<td>8.9</td>
<td>5.5</td>
</tr>
<tr>
<td>3 Forward</td>
<td>12.1</td>
<td>7.5</td>
</tr>
<tr>
<td>4 Forward</td>
<td>16.3</td>
<td>10.1</td>
</tr>
<tr>
<td>5 Forward</td>
<td>21.9</td>
<td>13.6</td>
</tr>
<tr>
<td>6 Forward</td>
<td>29.6</td>
<td>18.4</td>
</tr>
<tr>
<td>7 Forward</td>
<td>39.9</td>
<td>24.8</td>
</tr>
<tr>
<td>8 Forward</td>
<td>53.9</td>
<td>33.5</td>
</tr>
<tr>
<td>Reverse</td>
<td>9.2</td>
<td>5.7</td>
</tr>
</tbody>
</table>

### Steering

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering Angle – Right</td>
<td>85°</td>
</tr>
<tr>
<td>Steering Angle – Left</td>
<td>82°</td>
</tr>
</tbody>
</table>
# 621H Wheel Tractor-Scraper Specifications

<table>
<thead>
<tr>
<th>Weights</th>
<th>Service Refill Capacities – Tractor</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines meeting U.S. EPA Tier 4 Interim/EU Stage IIIB emission standards</td>
<td>Engine Crankcase 33 L 8.75 gal</td>
<td>• Steering System meets ISO 5010:2007 for up to a maximum approved operating weight</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>Transmission 70 L 18.5 gal</td>
<td>• Brakes meet ISO 3450:1996 for up to a maximum approved operating weight</td>
</tr>
<tr>
<td>Shipping Weight – 10% fuel 35 507 kg 78,279 lb</td>
<td>Final Drive 173 L 45.8 gal</td>
<td>• Rollover Protective Structure (ROPS) is certified to a tractor only mass of 18 800 kg (41,447 lb) as tractor portion of tractor-scrapers per Table 1 of ISO 3471:2008. This excludes scraper weight and payload.</td>
</tr>
<tr>
<td>Operating Weight – full fuel tanks 36 185 kg 79,774 lb</td>
<td>Cooling System 64 L 17.0 gal</td>
<td>• Falling Object Protective Structure (FOPS) meets ISO 3449:2005 Level II</td>
</tr>
<tr>
<td>Loaded, based on a rated load 62 312 kg 137,374 lb</td>
<td>Hydraulic Reservoir 83 L 22.0 gal</td>
<td>• Seat Belts meet SAE J386 June 1985</td>
</tr>
<tr>
<td>Push-Pull</td>
<td>Windshield Washer Reservoir 5 L 1.3 gal</td>
<td>• Forward and Reverse Alarms meet ISO 9553:1989</td>
</tr>
<tr>
<td>Shipping Weight – 10% fuel 36 782 kg 81,090 lb</td>
<td></td>
<td>• The dynamic operator sound pressure level is 76 dB(A) when “ISO 6396:2008” is used to measure the value for an enclosed cab. The measurement was conducted at 100% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds. The cab was properly installed and maintained. Hearing protection may be needed when the machine is operated with an open operator station for extended periods or in a noisy environment.</td>
</tr>
<tr>
<td>Operating Weight – full fuel tanks 37 440 kg 82,541 lb</td>
<td></td>
<td>Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors and windows are open for extended periods or in a noisy environment.</td>
</tr>
<tr>
<td>Loaded, based on a rated load 63 567 kg 141,141 lb</td>
<td></td>
<td>• The average exterior sound pressure level is 80 dB(A) when the “SAE J88 FEB06 – Constant Speed Moving Test” procedure is used to measure the value for the standard machine. The measurement was conducted under the following conditions: distance of 15 m (49.2 ft) and “the machine moving forward in an intermediate gear ratio.”</td>
</tr>
<tr>
<td>Machines achieving prior U.S. EPA Tier 3/EU Stage IIIA emission levels</td>
<td>Non-Powered Wheel 4 L 1.1 gal</td>
<td>• The exterior sound power level is 113 dB(A) when the value is measured according to the static pressure test procedures and the conditions that are specified in “ISO 6393:2008.”</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>Fuel Tank 763 L 201.6 gal</td>
<td></td>
</tr>
</tbody>
</table>
## Dimensions

All dimensions are approximate.

<table>
<thead>
<tr>
<th></th>
<th>mm</th>
<th>in</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Width – overall machine</td>
<td>3565</td>
</tr>
<tr>
<td>2</td>
<td>Width – tractor (ladder down)</td>
<td>3688</td>
</tr>
<tr>
<td>3</td>
<td>Width – tractor</td>
<td>3381</td>
</tr>
<tr>
<td>4</td>
<td>Width – rear tire centers</td>
<td>2290</td>
</tr>
<tr>
<td>5</td>
<td>Width – inside bowl</td>
<td>3048</td>
</tr>
<tr>
<td>6</td>
<td>Width – outside rear tires</td>
<td>3165</td>
</tr>
<tr>
<td>7</td>
<td>Height – overall shipping</td>
<td>4029</td>
</tr>
<tr>
<td>8</td>
<td>Height – top of cab</td>
<td>3612</td>
</tr>
<tr>
<td>9</td>
<td>Front of tractor to front axle</td>
<td>3119</td>
</tr>
<tr>
<td>10</td>
<td>Ground clearance, tractor</td>
<td>557</td>
</tr>
<tr>
<td>11</td>
<td>Axle to vertical hitch pin</td>
<td>540</td>
</tr>
<tr>
<td>12</td>
<td>Height – scraper blade maximum</td>
<td>540</td>
</tr>
<tr>
<td>13</td>
<td>Wheelbase</td>
<td>7998</td>
</tr>
<tr>
<td>14</td>
<td>Length – overall machine (standard)</td>
<td>14 015</td>
</tr>
<tr>
<td>15</td>
<td>Length – maximum (push-pull)</td>
<td>15 575</td>
</tr>
<tr>
<td>16</td>
<td>Rear axle to rear of machine</td>
<td>2898</td>
</tr>
</tbody>
</table>
621H Retarding*

* at sea level on high setting
Standard equipment may vary. Consult your Cat dealer for details.

POWER TRAIN
TRACTOR:
- C13 ACERT engine with MEUI
- Cat Engine Brake
- Electric start, 24 Volt
- Air cleaner, dry type with precleaner
- Fan, hydraulic
- Diesel Particulate Filter (DPF) aftertreatment (for engine meeting U.S. EPA Tier 4 Interim/EU Stage IIIB emission standards)
- Ground level engine shutdown
- Radiator, aluminum unit core
- Guard, crankcase
- Muffler (for engines achieving U.S. EPA Tier 3/EU Stage IIIA emission levels)
- Starting aid, ether
- Braking system:
  - Primary and Secondary, wet disc, hydraulic
  - Parking, hydraulically-released, spring-applied
- Throttle Lock
- Transmission:
  - 8-speed planetary powershift
  - ECPC Control
  - APECS software
  - Programmable top gear selection
  - Transmission hold
  - Differential lock
- Guard, power train

SCRAPER:
- Braking system:
  - Primary and Secondary, wet disc, hydraulic
  - Parking, hydraulically-released, spring-applied
  - 4-speed (torque converter drive) transmission, planetary powershift

ELECTRICAL
TRACTOR:
- Alternator, 150 Amp
- Batteries (4), 12 Volt, 1,000 CCA, maintenance free, high output
- Electrical system, 24V
- Lighting system:
  - Headlights, halogen
  - Turn signals with hazard function
  - LED Floodlights, halogen (2), cutting edge (1), bowl (2), side vision (2)
- Starting/charging receptacle

OPERATOR ENVIRONMENT
TRACTOR:
- HVAC system, heat, AC, defrost
- Thermostat control of HVAC system
- Coat hook
- Lunchbox platform with holding strap
- Diagnostic connection (2)
- 12V power ports (2)
- Differential lock (1)
- Dome courtesy light
- Horn, electric
- T-Handle implement control
- Mirror, rearview
- Radio ready, 12V
- ROPS/FOPS cab, pressurized
- Keypad switches
- Safety tab rocker switches
- Parking brake
- Seat belt, static two-piece
- Seat, air suspension, Comfort Series 3, rotates 30 degrees
- Steering wheel, tilt, telescoping, padded
- Storage in dash if W AVS or Cat Grade Control is not equipped
- Windows, right side emergency egress
- Windows, sliding
- Windows, laminated, zipped in
- Windshield wipers, front and rear windows, includes washers
- Door lock

Messenger Display – gauges, warnings include:
- Coolant temp
- Engine oil temp
- Hydraulic oil temp
- DPF temp
- Fuel level
- Park brake
- Implement lockout
- Brake system
- Regeneration required
- Throttle lock
- System voltage
- Secondary steering
- Bail down
- Differential lock
- Apron float
- Transmission hold
- Cushion hitch
- High beam lights
- Action lamp
- Engine speed, rpm
- Gear selection out
- DPF fill levels

FLUIDS
Extended Life Coolant to –37° C (–34° F)

OTHER STANDARD EQUIPMENT
TRACTOR:
- Cushion hitch
- Accumulators (cushion hitch) with Canadian Registration Number (CRN)
- Fast oil change
- Fenders, non metallic
- Heater, engine coolant 120V
- Tow pin, front
- Vandalism locks

SCRAPER:
- Quick drop bowl valve
- Vandalism locks
- Extended push block
Optional equipment may vary. Consult your Cat dealer for details.

Push-pull arrangement
Sequence Assist
Load Assist
Cat Grade Control
Secondary Steering
Fender extension, scraper
Powered access ladder
Cat Active Ride Management (ARM) seat
Fast fuel fill
HID Work lights
Low ambient fluids –51° C (–61° F)
Work Area Vision System (WAVS) – three cameras showing right side, cutting edge and directly behind machine, display in cab
External steering lock
Cab precleaner
Cab rotating beacon
Air horn